

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Yellowstone River Bundled Pipeline Crossing HDD Easements
Proposed Implementation Date:	January/February 2016
Proponent:	Phillips 66 Carrier, LLC; Yellowstone Pipe Line Company; Cenex Pipeline, LLC
Location:	Sections 27 and 34, Township 1 North, Range 26 East (Yellowstone River – Public Land Trust)
County:	Yellowstone County

I. TYPE AND PURPOSE OF ACTION

Phillips 66 Carrier LLC, Yellowstone Pipe Line Company and Cenex Pipeline LLC have all applied for new easements for new Horizontal Directional Drill (HDD) pipeline facilities under the Yellowstone River, located immediately east of Billings. The new pipelines would replace existing facilities that each entity currently has in the same area. These existing pipelines are a part of a 5 pipeline “bundle” that was installed in the early 1990s in a trench in the Yellowstone River. All of the pipelines were installed at the same time in the 1990s and are bound together with cables and timbers and separated from each other by about one foot. The pipelines located in the “bundle” are owned by: ExxonMobil Pipeline; Cenex Pipeline, LLC; Yellowstone Pipe Line Company (owned by Phillips 66 Pipeline); Phillips 66 Carrier, LLC and Montana Dakota Utilities (MDU). Except for the MDU pipeline, which transports natural gas, all of the other pipelines carry petroleum products.

The new proposed easement alignments are shown on attached Exhibits A thru D and specifically described below:

- *Phillips 66 Carrier, LLC*: a new 8” petroleum pipeline in a 30’ wide by 444.57’ long area under the bed of the Yellowstone River containing 0.306 acres;
- *Yellowstone Pipe Line Company*: a new 8” petroleum pipeline in a 30’ wide by 443.84’ long area under the bed of the Yellowstone River containing 0.306 acres; and
- *Cenex Pipeline, LLC*: a new 8” petroleum pipeline in a 30’ wide by 481.62’ long area under the bed of the Yellowstone River containing 0.332 acres.

On 11 August 2015, the SLO facilitated a meeting with all of the owners, except MDU who was invited but did not attend, as well as all of the permitting agencies including: Yellowstone Conservation District, Yellowstone County Floodplain, MT Department of Environmental Quality, MT Fish Wildlife & Parks, and US Army Corps of Engineers. In that meeting, the pipeline owners agreed to work with each other and to try and coordinate any new directional drilling projects. The SLO subsequently held another meeting with the same pipeline owners and agencies on 3 October 2016 to share information on the three new pipeline requests in this EA and to also allow for the sharing of information between the pipeline owners and regulatory agencies. As with the August 2015 meeting, MDU did not attend the October meeting and according to the other pipeline owners is not discontinuing the use of their facility in the bundled crossing nor proposing a new HDD facility. At this meeting, the pipeline owners informed the agencies Phillips 66 would act as the project manager for all of the new HDDs by all of the pipeline companies since they all will originate on the same lot, which is owned by Cenex, where they all have existing block valves.

The new Phillips 66 (Seminole Pipeline) and Yellowstone Pipe Line will be installed 15’ apart and parallel to each other. They will be located approximately 35-50’ downstream (north) of the existing bundled crossing, as shown on attached Exhibits B and C. Cenex is proposing to conduct a longer 2,195’ HDD (see Exhibit D) starting from the block valves bearing southwest with an exit point on the west bank of the Yellowstone River at their existing tank farm located between Highway 87 East and Interstate 90. The new Cenex river crossing would be located between 1,100’ to 1,400’ upstream (south) of the existing bundled crossing.

ExxonMobil Pipeline Company submitted an easement application for their HDD easement at the bundled crossing earlier in 2016. The easement for this new crossing was approved by the Land Board at their 20 April 2016 meeting. The ExxonMobil HDD easement is located approximately 30’ upstream (south) of the existing bundled crossing.

The existing pipelines in the bundled crossing have a depth of cover varying between 3.3 to 6.4 feet, depending on the year the study was undertaken with the most recent Phillips 66 Seminoe line DOC study from August 2016 indicating a range of 4.42' to 9.33'. The banks on both sides of the Yellowstone at this crossing are fairly stable, with the west bank being completely armored, and there is a low likelihood of channel migration in this reach. However, the armoring could increase the potential for river scour in high water or ice jam events.

All three pipeline companies are proposing to abandon in place their existing pipelines that are located under the Yellowstone River. The pipeline companies are requesting that this be allowed due to the nature of this particular crossing where all five existing pipelines are literally attached to each other with cables and separated from each other by timbers. Due to Montana Dakota Utilities pipeline remaining active, the removal of the petroleum pipelines next to an active high pressure natural gas line was undesirable. The three pipeline owners are proposing to purge and swab the existing pipeline sections under the river and then fill with a weak one-sack flowable sand/cement mixture and cap the ends. In addition, cathodic protection will be discontinued and "...over time without cathodic protection, the pipe will eventually degrade and the flowable fill will become part of the valley fill that the pipeline is buried in." On 5 August 2016, Phillips 66 extricated an older segment of the Seminoe Pipeline in the Yellowstone River approximately 2 miles upstream from this location. In that location, the pipeline that was installed in 1963 and taken out of service in 1975 and when it was removed earlier this year with excavators, it did not appear to have much degradation based on observations from the river bank.

The abandoned pipelines will still be monitored by the pipeline owners with the same protocols for active pipelines. Monitoring includes aerial surveys and depth of cover assessments as required by the US Department of Transportation Pipeline and Hazardous Material Safety Administration (PHMSA).

The new pipelines will be installed approximately 40-41 feet beneath the thalweg of the Yellowstone River. The potential for the new HDD pipeline to be damaged by scour or moving debris, or third party impact, is reduced significantly with the increased depth. By installing the new HDD pipelines, the pipeline owners should encounter fewer instances where the pipeline must be shut down for operational safety due to flooding or other events on the Yellowstone River that could impact pipeline safety.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

The DNRC did not perform any formal public scoping for this project. However, the 310 Permit was discussed at a Yellowstone Conservation District meeting on 9 November 2016 with the engineering representative for Phillips 66, Cenex Pipeline and ExxonMobil and other permitting agencies in attendance.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Montana Natural Streambed and Land Preservation Act (310 Permit) – Approved on 11/9/2016
Yellowstone County Floodplain Permit – Pending
US Army Corps of Engineers Section 10 Permit – Pending
MT DEQ Short-Term Water Quality Standard for Turbidity Related to Construction Activity (318 Authorization)/401 Water Quality Certification – Pending

3. ALTERNATIVES CONSIDERED:

No Action Alternative: Deny the requests to issue new easements to permit the installation of three new pipeline segments under the bed of the Yellowstone River via Horizontal Directional Drilling (HDD) for Phillips 66 Carrier LLC, Yellowstone Pipe Line Company and Cenex Pipeline LLC. If this alternative was selected, the companies would have to continue to use their existing facilities in the bundled crossing.

Proposed Alternative: Issue a 30-year term easements to Phillips 66 Carrier LLC, Yellowstone Pipe Line Company and Cenex Pipeline LLC to permit the installation of three new 8-inch pipelines under the bed of the Yellowstone River through the use of Horizontal Directional Drilling (HDD). Utilization of the HDD method would permit the pipelines to be installed up to 41' beneath the riverbed. Additionally it is recommended that the State require that depth of cover analysis be conducted on the existing pipelines that are abandoned in place. The depth of cover information shall be conducted and submitted to the DNRC on a three (3) to five (5) year cyclical basis; or following flows in excess of 58,900 cubic feet per second (cfs), as measured by the USGS Gauge in Billings, MT; or as requested by DNRC when there is reasonable evidence indicating the potential exposure of the abandoned pipelines. Such evidence may include, but not be limited to, objects or materials appearing to be caught on the pipeline. The pipeline(s) shall be removed if it becomes exposed and/or a hazard to river navigation or are required to be removed by the State, US Army Corps of Engineers and/or US DOT PHMSA. Additionally, it is recommended that the existing pipelines be required to be removed once all five of the existing pipelines in the bundled crossing have been abandoned. The stipulations for these three pipeline easements will mirror those placed in the ExxonMobil HDD easement that was executed on 22 August 2016 via D-15538.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The proposed alternative would permit the use of Horizontal Directional Drilling (HDD) to install three new segments of pipeline up to 41' below the bed of the Yellowstone River. The project would have an entry point on the east side of the Yellowstone River, east of the Lockwood Water Plant on a lot owned by Cenex (CHS) and on which each pipeline owner has a block valve. The exit points for the Phillips 66 and Yellowstone Pipe Line Company pipelines will be on the west side of the river on land owned by Yellowstone County that is part of the fairgrounds. The Cenex Pipeline will exit further south on the west side of the Yellowstone River at an existing Cenex tank farm that is located between Highway 87 East and Interstate 90. Any impacts to state-owned land would be from the boring of the new pipelines route under the riverbed. No significant adverse impacts are expected to geology and soil quality by implementing the proposed alternative.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

The proposed alternative would allow for three new 8-inch petroleum pipelines to be installed in the bed of the Yellowstone River via Horizontal Directional Drilling (HDD). The use of HDD would limit the adverse impacts to water quality and quantity by allowing for the new facilities to be located up to 41 feet below the bed of the Yellowstone River in a layer of sandstone which would provide additional protection for the pipelines from scouring of the river bottom.

Short term impacts from the construction/drilling operation are not expected to have significant adverse impacts. The pipeline owners will be required to follow Montana Best Management Practices (BMP) for stormwater runoff, as well as permitting requirements from the Montana Department of Environmental Quality. This would include installing erosion control and sediment control devices to prevent topsoil from reaching the river. At present, Phillips 66 is going to be the project manager for all of the HDD pipelines in this area, including: ExxonMobil Pipeline, Phillips 66 Carrier, Yellowstone Pipe Line Company and Cenex Pipeline.

The existing pipelines are a part of a five pipeline bundle that was installed in the early 1990s in a trench in the bed of the Yellowstone River. All of the pipelines were installed at the same time and are bound together with cables and timbers and separated from each other by about one foot. The three pipeline owners are proposing

to purge and swab the existing pipeline sections under the river and then fill with a weak one-sack flowable sand/cement mixture and cap the ends. The pipelines will still be monitored as if they were active through aerial surveys and depth of cover assessments and stipulations will be included in the new easement to require that the existing pipeline be removed if it becomes exposed or depth of cover becomes too shallow.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

The proposed alternative would require the operation of construction machinery including but not limited to a HDD drill rig, tracked excavator, dump trucks and miscellaneous support equipment. Not all machinery would be operating at the same time. The entire project, inclusive of all four new pipelines, is expected to last approximately 5 months, with the actual HDD process taking about 12 weeks of that timeframe. The proposed alternative would result in a relatively short duration construction project and is not expected to have significant long term adverse impacts to air quality.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

The proposed alternative would result in three (3) new 8-inch pipeline segments being bored up to 41' under the existing riverbed and would not result in any vegetation disturbance on state-owned land. No significant impacts to vegetation cover, quantity or quality on state-owned lands are expected by implementing the proposed alternative.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

A variety of small mammals, raptors and songbirds may traverse this area; however it is located in developed area immediately adjacent to the City of Billings with the fairgrounds on the west bank. The east bank contains the Lockwood Water Treatment Plant along with various light industrial uses. In addition, the HDD entry site is located about 250' from US Highway 87 and the BNSF railroad. The noise from the drill rig and associated activities could disperse or cause wildlife to temporarily avoid the area. No significant adverse impacts to terrestrial, avian and aquatic life and habitats are expected to occur as a result of implementing the proposed alternative.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

A proposed project area search of the Montana Natural Heritage Program database identified seventeen animals listed as a species of concern or threatened species: Plains Spadefoot, Great Blue Heron, Bald Eagle, Peregrine Falcon, Pinyon Jay, Veery, Loggerhead Shrike, Brewer's Sparrow, Yellowstone Cutthroat Trout, Sauger, Little Brown Myotis, Hoary Bat, Spotted Bat, Spiny Softshell, Greater Short-horned Lizard, Plains Hog-nosed Snake and Western Milksnake. The proposed project area is located outside of Greater Sage-grouse core and general habitats.

The proposed action would result in three new pipelines being bored under the state-owned riverbed and would not result in any surface disturbance on state-owned land. The project would have an entry point near the Lockwood Water Treatment plant and exit on the west side of the river in the fairgrounds owned by Yellowstone County for the Phillips 66 and Yellowstone Pipe Line facilities and the Cenex pipeline would exit approximately ¼-mile south on the west side of the river at an existing Cenex tank farm. The area on the east side of the river contains light industrial uses with many lots surrounded by 6' chain link fencing, so it would not be expected to have much suitable habitat for wildlife. Due to the location and relatively short duration of the project, the proposed action is not expected to have a significant adverse impact on any of the species listed above.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

The portion of the proposed pipelines that are under state ownership will be installed via Horizontal Directional Drilling and located up to 41' below the river bed of the Yellowstone River. No significant adverse impact to historic and archaeological sites on state-owned land is expected as a result of implementing the proposed alternative.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

The proposed Phillips 66 and Yellowstone Pipe Line easements would cross the Yellowstone River downstream of the US Highway 87 bridge and BNSF railroad bridge. The HDD entry point (see Exhibit E) will be near the Lockwood Water Treatment plant (on a Cenex-owned lot containing block valves for all five pipelines) and exit on the west side of the river in the fairgrounds owned by Yellowstone County. The area on the east side of the river contains a variety of light industrial uses, while the exit area on the fairgrounds is relatively undeveloped. There is also a bike-pedestrian trail that runs along the west side of the Yellowstone River in this area that the HDD pipeline will go under. The proposed Cenex Pipeline easement would also enter at the same location but would bore in a southwesterly direction and exit on the west side of the Yellowstone River at an existing Cenex tank farm that is located between Highway 87 East and Interstate 90.

Based on previous HDD requests, it is estimated that noise levels from equipment implementing the proposed action will be between 65-70 dBA. This level is loud enough that it could impact speech for nearby businesses. There are no residential structures in the vicinity that would be impacted by equipment noise. The entire project, inclusive of all four new pipelines, is expected to last approximately 5 months, with the actual HDD process taking about 12 weeks of that timeframe. The remaining time would consist of setup and takedown along with tying in the new pipelines to their existing facilities on each side of the river.

Implementation of the Proposed Alternative would cause minor temporary short term impacts to aesthetics during the pipeline construction due to visual impacts and noise from the HDD drill rig and other heavy equipment. The proposed action would add to the existing noise levels, but this temporary addition is not expected to cause a significant adverse impact due to the proximity of the highway, railroad and light industrial uses.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

Implementation of the Proposed Alternative is not expected to have a significant adverse impact on environmental resources of land, water or energy.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

Other permits that are required by other local, state and federal agencies or departments for the proposed project are listed above in Section 2 of this EA. There is the potential that Montana Dakota Utilities could apply for an easement at a later date for a new HDD pipeline facility, but the Southern Land Office has made a number of attempts to contact MDU and understand their future plans, but have been unsuccessful. Additionally, if the existing petroleum pipelines are allowed by the State and US Army Corps of Engineers to be abandoned in place, there is potential that at some future point in time they will be required to be extricated if they become exposed. An environmental review is expected at that time if that action becomes necessary.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

Implementation of the Proposed Alternative would provide for increased health and safety by taking three existing pipelines that currently have some risk of exposure out of service before there is an incident that would cause another oil spill in the Yellowstone River.

The SLO is recommending that the existing pipelines be allowed to be abandoned-in-place in the "bundle" until all five of the pipelines have been abandoned and then the easements will require them all to be removed. The existing pipelines are a part of a five pipeline bundle that was installed in the early 1990s in a trench in the bed of the Yellowstone River. All of the pipelines were installed at the same time and are bound together with cables and timbers and separated from each other by about one foot. The three pipeline owners are proposing to purge and swab the existing pipeline sections under the river and then fill with a weak one-sack flowable sand/cement mixture and cap the ends. The pipelines will still be monitored as if they were active through aerial surveys and depth of cover assessments and stipulations will be included in the new easement to require that the existing pipeline be removed if it becomes exposed or depth of cover becomes too shallow and/or they become a hazard to river navigation.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

Implementation of the Proposed Alternative would allow the Phillips 66, Yellowstone Pipe Line and Cenex pipelines to remain fully operational once the HDD is complete and the new segments are connected to their existing pipeline system. By installing the new HDD pipelines, the pipeline owners should encounter fewer instances where the pipelines must be shut down for operational safety due to flooding or other events on the Yellowstone River that could impact pipeline safety.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

Implementation of the Proposed Alternative would not have a significant impact to quantity and distribution of employment.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

Implementation of the Proposed Alternative is not expected to have a significant impact on local and state taxes.

18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

Implementation of the Proposed Alternative is not expected to have a significant adverse impact on the demand for government services.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

Implementation of the Proposed Alternative will not conflict with any locally adopted plans.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

This section of the Yellowstone River is fairly actively used and there is a Fishing Access site adjacent to the Lockwood Water Treatment Plant on the east bank, which is located approximately 500 feet upstream of the existing bundled pipeline crossing. The project may result in a temporary closure of the bike-pedestrian is on the west bank and runs parallel to the Yellowstone River, since the HDDs will have to go under the path to get to their tie in points.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

Implementation of the Proposed Alternative is not expected to have a significant adverse impact to density and distribution of population and housing.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

Implementation of the Proposed Alternative is not expected to have a significant adverse impact on social structures and mores.

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

Implementation of the Proposed Alternative is not expected to have a significant adverse impact on cultural uniqueness or diversity.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

The State will benefit by getting a total fee of \$20,205, as detailed below, based on land values in this area along the Yellowstone River for the new 30 year HDD easements which were higher than the offer from the three companies of \$150/rod. The Public Lands Trust is the beneficiary of this payment since it involves a navigable river.

- *Phillips 66 Carrier, LLC:* (0.306 acres x \$42,805/acre) x 50% = \$6,550
- *Yellowstone Pipe Line Company:* (0.306 acres x \$42,805/acre) x 50% = \$6,550
- *Cenex Pipeline, LLC:* (0.332 acres x \$42,805/acre) x 50% = \$7,105

EA Checklist Prepared By:	Name: Jeff Bollman, AICP	Date: 9 November 2016
	Title: Area Planner, Southern Land Office	

V. FINDING

25. ALTERNATIVE SELECTED:

The Proposed Alternative has been selected and it is recommended that 30-year term easements be granted to Phillips 66 Carrier LLC, Yellowstone Pipe Line Company and Cenex Pipeline LLC for the purpose of installing three 8-inch diameter petroleum pipelines underneath the navigable riverbed of the Yellowstone River to replace the existing 8-inch pipeline that each pipeline owner currently has in place. All three new pipelines will be installed utilizing Horizontal Directional Drilling (HDD) and will be located at least 40' below the navigable riverbed of the Yellowstone River. The location of each proposed pipeline is illustrated on attached Exhibit A.

Additionally it is recommended that the State require that depth of cover analysis be conducted on the existing pipelines that are abandoned in place. The depth of cover information shall be conducted and submitted to the DNRC on a three (3) to five (5) year cyclical basis; or following flows in excess of 58,900 cubic feet per second (cfs), as measured by the USGS Gauge in Billings, MT; or as requested by DNRC when there is reasonable evidence indicating the potential exposure of the abandoned pipelines. Such evidence may include, but not be limited to, objects or materials appearing to be caught on the pipeline. The pipeline(s) shall be removed if it becomes exposed and/or a hazard to river navigation or are required to be removed by the State, US Army Corps of Engineers and/or US DOT PHMSA. Additionally, it is recommended that the existing pipelines be required to be removed once all five of the existing pipelines in the bundled crossing have been abandoned. The stipulations for these three pipeline easements will mirror those placed in the ExxonMobil HDD easement that was executed on 22 August 2016 via D-15538.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

The potential for significant adverse impacts to Public Trust Lands (the navigable riverbed) are reduced by the nature of the Horizontal Directional Drilling technique that will be utilized for the three new pipelines that will increase the depth of the active pipelines to at least 40' beneath the existing navigable riverbed. Many potential impacts listed above are short term and correspond with the construction project. There are no natural features or nearby species of concern noted that are expected to produce long term adverse impacts from implementing the proposed alternative.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

☐

EIS

☐

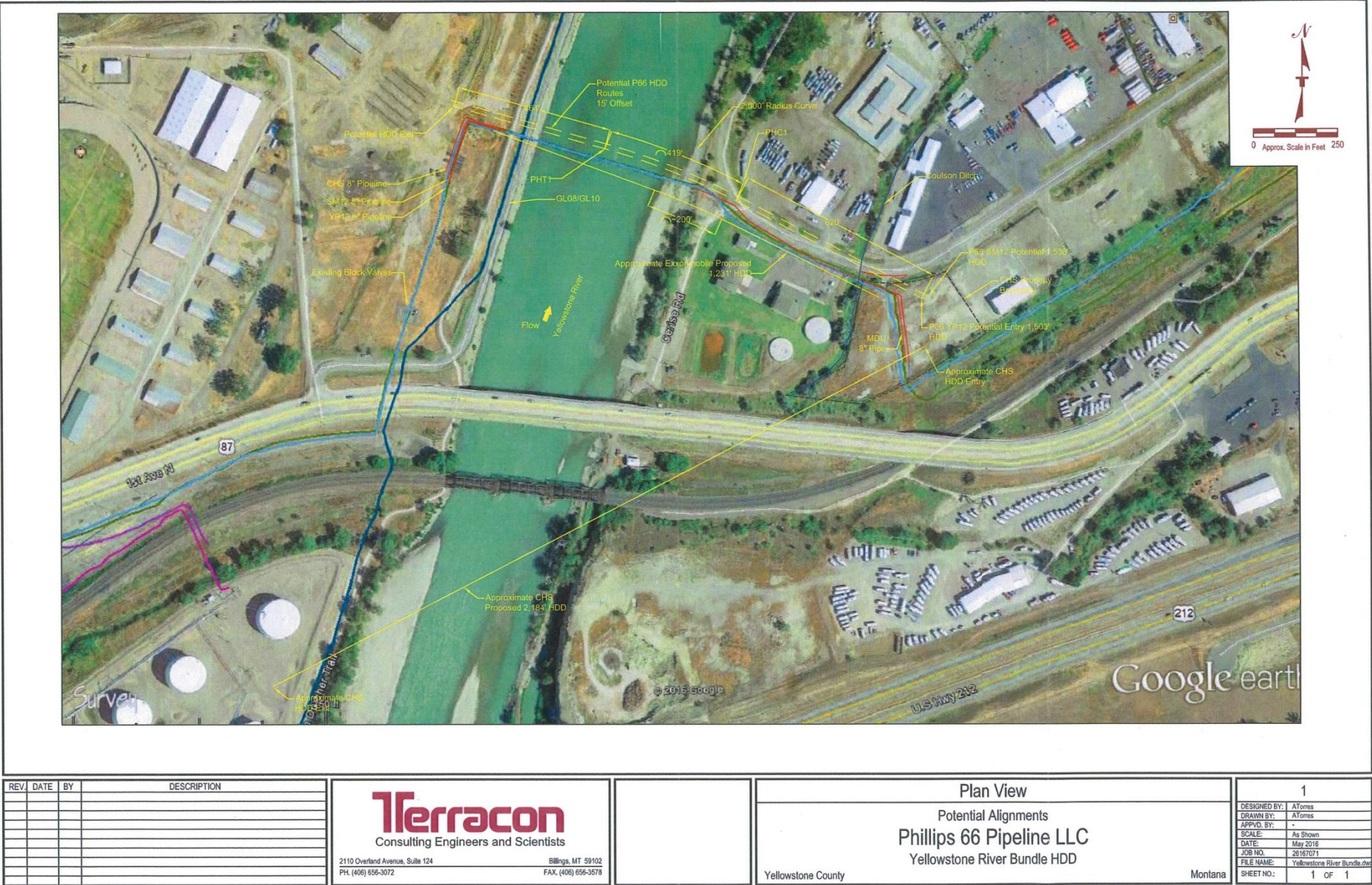
More Detailed EA

☒

No Further Analysis

EA Checklist Approved By:	Name: Matthew Wolcott
	Title: Area Manager, Southern Land Office
Signature: /s/ Matthew Wolcott	
Date: November 9, 2016	

Exhibit A – Proposed Pipeline Easements Alignments and Existing “Bundled” Crossing



REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
2110 Overland Avenue, Suite 124
PH. (406) 656-3072

Billings, MT 59102
FAX. (406) 656-3578

Plan View

Potential Alignments

Phillips 66 Pipeline LLC

Yellowstone River Bundle HDD

Yellowstone County

Montana

1
DESIGNED BY: A.Torres
DRAWN BY: A.Torres
APPROVED BY: -
SCALE: As Shown
DATE: May 2018
JOB NO: 26167071
FILE NAME: Yellowstone River Bundle HDD
SHEET NO: 1 OF 1

Exhibit B – Phillips 66 Carrier Seminole Pipeline Plan and Profile

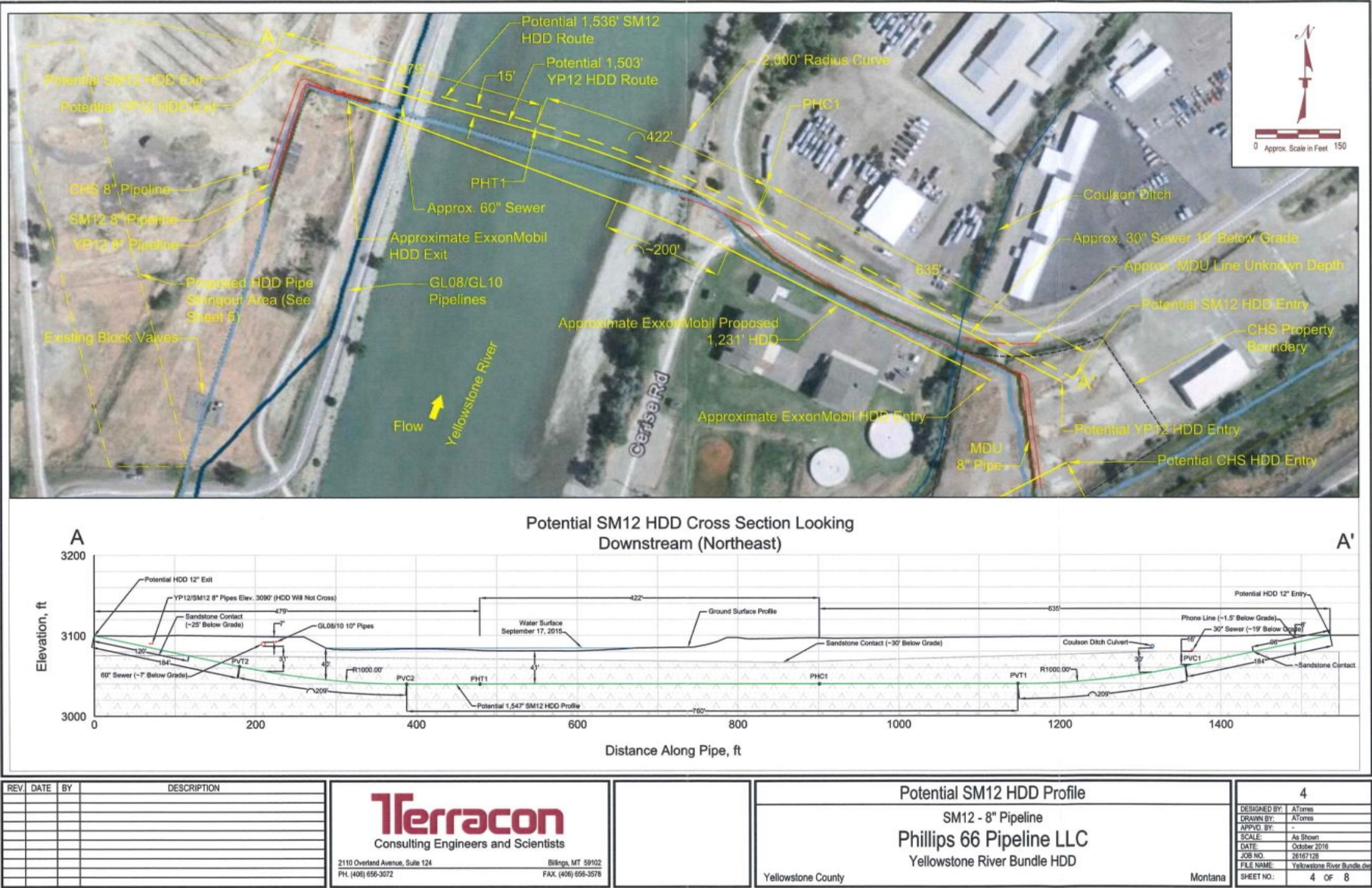


Exhibit D – Cenex Pipeline, LLC HDD Plan and Profile

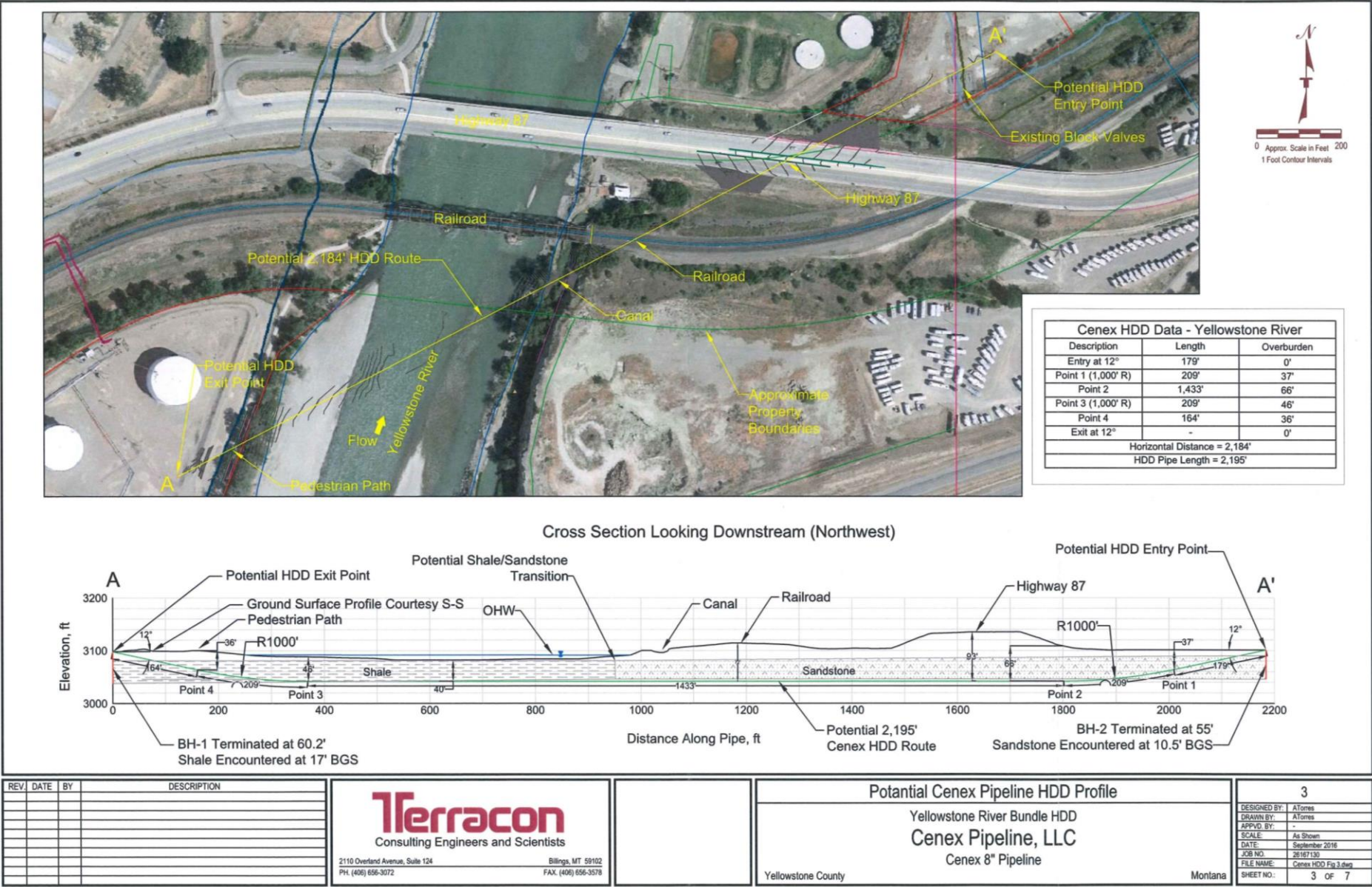


Exhibit E – View of Existing Block Valve Site on East Side of Yellowstone River (Owned by Cenex)

